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Robert J. LEE  
Appl. No. 10/689,935  
Atty. Docket: 1875.3480001

*Amendments to the Drawings*

A new Fig. 6 has been submitted herewith.

***Remarks***

Reconsideration of this Application is respectfully requested.

Upon entry of the foregoing amendment, claims 1-20 are pending in the application, with claims 1, 6, 10, 12, 19, and 20 being the independent claims. These changes are believed to introduce no new matter, and their entry is respectfully requested.

Based on the above amendment and the following remarks, Applicant respectfully requests that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

***Objections to the Drawings***

The Examiner has objected to the drawings, because the drawing allegedly do not show "a serial sync receiver that receives a serial packet sync datastream on a single pin."

An example of a serial sync receiver that receives a serial packet sync datastream on a single pin is shown as element Serial Packet Sync Receiver 602 in Fig. 6. Thus, the Examiner's objection is improper. Applicant respectfully request that the Examiner's objections to the drawings be withdrawn.

***Rejections under 35 U.S.C. § 112***

The Examiner has rejected to claims 12, 13, 19 and 20, because the limitation "on a single pin" is allegedly indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicant regards as the invention. In the rejection the Examiner simply states that "the limitation on a single pin needs to

be further defined." The Examiner has provided no explanation as to why the element "on a single pin" needs to be further defined, i.e. why "on a single pin" is indefinite.

Applicant notes that the "[b]readth of a claim is not to be equated with indefiniteness." See M.P.E.P. Sec. 2173.04. The term "on a single pin" given its broadest reasonable interpretation is definite. Thus, Applicant respectfully request that the rejections to the claims 12, 13, 19 and 20 be withdrawn. If the Examiner does not withdraw this rejection, Applicant respectfully requests further explanation as to the basis for the rejection to enable the Applicant to appropriately consider the rejection.

***Rejections under 35 U.S.C. § 103***

**Claims 1-5**

Claims 1 and 3 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Chappell et al. (US Patent 6,973,096) in view of Mannette et al. (US Patent 6,975,652) and Feezel et al. (US Patent 5,267,263).

Claims 2 and 4 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Chappell et al. (US Patent 6,973,096) and Mannette et al. (US Patent 6,975,652) and Feezel et al. (US Patent 5,267,263) as applied to claim 1 in further view of Moore, Jr. et al. (US Patent 6,807,195).

Claim 5 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Chappell et al. (US Patent 6,973,096) and Mannette et al. (US Patent 6,975,652) and Feezel et al. (US Patent 5,267,263) as applied to claim 1 in further view of Chapman (US Patent 7,085,287).

Applicants respectfully traverses these rejections.

Claim 1 includes the element "synchronously receiving each bit of said serial packet sync datastream into a serial packet sync receiver." The Examiner admits that Chappell does not teach this element and relies on the fact that the CM in Mannette receives a control message from a CMTS as the Examiner's basis for holding that this element is disclosed by the combination of Chappell and Mannette. See Office Action dated December 12, 2007 at page 6-7. As described in Mannette, the CM and CMTS communicate over a Hybrid Fiber Coax connection (*see*, Col. 3 lines 21-24). This type of communication is not "synchronously receiving each bit" as defined in the context of the claimed invention. Thus, Mannette does not disclose "synchronously receiving each bit of said serial packet sync datastream into a serial packet sync receiver." Feezel does not cure the deficiencies of Chappell and Mannette with respect to "synchronously receiving each bit of said serial packet sync datastream into a serial packet sync receiver."

Because the combination of Chappell, Mannette, and Feezel fail to teach, suggest or disclose all of the elements of claim 1, claim 1 is patentable in view of the combination of Chappell and Mannette. Withdrawal of this rejection and allowance of claim 1 is respectfully requested.

Claim 3 is dependent on claim 1 and is patentable over the combination of Chappell, Mannette and Feezel for at least the reasons stated above in accordance with the discussion of claim 1, independent of its features. Reconsideration and allowance of claim 3 is respectfully requested.

Claims 2 and 4 are dependent on claim 1 and are patentable over the combination of the Chappell, Mannette, Feezel, and Moore, Jr. Moore, Jr. does not

cure the deficiencies of Chappell, Mannette, and Feezel as a basis for rejecting claim

1. Thus, for at least the reasons stated above in accordance with the discussion of claim 1, claims 2 and 4 are also allowable, independent of their respective features. Reconsideration and allowance of claims 2 and 4 is respectfully requested.

Claim 5 is dependent on claim 1 and is patentable over the combination of the Chappell, Mannette, Feezel, and Chapman. Chapman does not cure the deficiencies of Chappell, Mannette and Feezel as a basis for rejecting claim 1. Thus, for at least the reasons stated above in accordance with the discussion of claim 1, claim 5 is also allowable. Reconsideration and allowance of claim 5 is respectfully requested.

#### **Claims 6-9**

Claims 6 and 7 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Chappell et al. (US Patent 6,973,096) in view of Feezel et al. (US Patent 5,267,263).

Claims 8 and 9 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Chappell et al. (US Patent 6,973,096) and Feezel et al. (US Patent 5,267,263) as applied to claim 6 in further view of Chapman (US Patent 7,085,287).

Applicants respectfully traverses these rejections.

Claim 6 includes the element of "transmitting said serial packet sync datastream by synchronously shifting each bit of said serial packet sync datastream out of said serial packet sync transmitter."

The Examiner concedes that Chappell does not teach this element. See Office Action dated December 12, 2007 at page 13. ("Chappell does not explicitly disclose[s] synchronously shifting each bit of said serial packet sync datastream out.")

The Examiner relies on Feezel as disclosing "transmitting said serial packet sync datastream by synchronously shifting each bit of said serial packet sync datastream out of said serial packet sync transmitter." Although, Feezel may disclose having a synchronous transmitter for synchronously transmitting, Feezel does not disclose where the synchronous transmitter transmits by shifting each bit out of the transmitter. For at least this reason, Feezel does not disclose "transmitting said serial packet sync datastream by synchronously shifting each bit of said serial packet sync datastream out of said serial packet sync transmitter."

Because the combination of Chappell and Feezel fail to teach, suggest or disclose all of the elements of claim 6, claim 6 is patentable in view of the combination of Chappell and Feezel. Withdrawal of this rejection and allowance of claim 6 is respectfully requested.

Claim 7 is dependent on claim 6 and is patentable over the combination of Chappell and Feezel for at least the reasons stated above in accordance with the discussion of claim 6, independent of its features. Withdrawal of this rejection and allowance of claim 7 is respectfully requested.

Claims 8 and 9 are dependent on claim 6 and are patentable over the combination of the Chappell, Feezel, and Chapman. The Chapman does not cure the deficiencies of Chappell and Feezel as a basis for rejecting claim 6. Thus, for at least the reasons stated above in accordance with the discussion of claim 6, claims 8 and 9 are also allowable, independent of their respective features. Reconsideration and allowance of claims 8 and 9 is respectfully requested.

**Claims 10-11**

Claim 10 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Chappell et al. (US Patent 6,973,096) in view of Gatherer et al. (US Patent 6,549,584) and Mannette et al. (US Patent 6,975,652).

Claim 11 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Chappell et al. (US Patent 6,973,096), Gatherer et al. (US Patent 6,549,584), and Mannett et al. (US Patent 6,975,652) as applied to claim 10 in further view of Moore, Jr. et al. (US Patent 6,807,195).

Applicants respectfully traverses these rejections.

Claim 10 includes the element of "synchronously receiving each bit of a serial packet sync datastream into a serial packet sync receiver, wherein said serial packet sync data stream is comprised of a packet sync vector and a preamble."

The Examiner concedes that Chappell does not teach this element. See Office Action dated December 12, 2007 at page 6-7 ("Chappell et al. does not disclose synchronously receiving each bit of a serial packet sync datastream into a serial packet sync receiver."). The Examiner relies on Gatherer as disclosing this element. However, Gatherer does not disclose this element because Gatherer fails to disclose "wherein said serial packet sync data stream is comprised of a packet sync vector and a preamble." The fact that Gatherer fails to disclose "wherein said serial packet sync data stream is comprised of a packet sync vector and a preamble" is conceded by the Examiner with respect to the discussion of claim 19. See Office Action dated December 12, 2007 at page 27. ("Gatherer does not disclose said serial packet sync datastream comprised of said packet vector and a preamble."). Mannette does not teach, suggest or disclose what is lacking from Chappell and Gatherer.

Because the combination of Chappell, Gatherer, and Mannette fail to teach, suggest or disclose all of the elements of claim 10, claim 10 is patentable over the combination of Chappell, Gatherer, and Mannette. Reconsideration and allowance of claim 10 is respectfully requested.

Claim 11 is dependent on claim 10 and is patentable over Chappell, in view of Gatherer et al. and Mannette et al. for the reasons stated above in accordance with the discussion of claim 10. Reconsideration and allowance of claim 10 is respectfully requested.

Claim 11 is dependent on claim 10 and is patentable over the combination of the Chappell, Gatherer, Mannette, and Moore, Jr. Moore, Jr. does not cure the deficiencies of Chappell, Gatherer, and Mannette as a basis for rejecting claim 10. Thus, for at least the reasons stated above in accordance with the discussion of claim 10, claim 11 is also allowable. Reconsideration and allowance of claim 11 is respectfully requested.

### **Claim 12**

The Office Action dated December 12, 2007 does not include a rejection of claim 12. If the Examiner wishes to reject claim 12, Applicant respectfully requests that the Examiner submit a Non-Final Office Action including a rejection of claim 12. Applicant notes that Applicant's response, dated Sept. 24, 2007, that Applicant's demonstrated that Gatherer did not anticipate claim 12. Those same arguments can be used to support that Gatherer does not teach or suggest claim 12, and therefore is allowable over Gatherer.



**Claims 13-18**

Claim 13 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Gatherer et al. (US Patent 6,549,584) as applied to claim 12, and further in view of Krieger (US patent 6,769,093).

Claim 14 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Gatherer et al. (US Patent 6,549,584) as applied to claim 12, and further in view of Mannette et al. (US patent 6,975,652).

Claim 15 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Gatherer et al. (US Patent 6,549,584) as applied to claim 12, and further in view of Coles et al. (PG PUB 2004/0150537).

Claims 16-18 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Gatherer et al. (US Patent 6,549,584) as applied to claim 12, and further in view of Chappell (US Patent 6,973,096).

The applicant respectfully traverses these rejections.

The rejections of claims 13-18 are all based on a rejection of claim 12 in view of Gatherer et al. (US Patent 6,549,584). However, the Office Action dated December 12, 2007 does not include a rejection of claim 12 in view of Gatherer et al. If the Examiner wishes to maintain the rejections of claims 13-18, Applicant requests that the Examiner submit a Non-Final Office Action including a rejection of claim 12 in view of Gatherer et al.

**Claims 19**

Claim 19 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Gatherer et al. (US Patent 6,549,584) in view of Chappell et al. (US Patent 6,973,096) and Krieger (US Patent 6,796,093).

Claim 19 includes the element of "wherein said serial packet sync encoder comprises a serial packet sync transmitter that transmits said serial packet sync datastream on a single pin as an indication that said grant has arrived." An example of a "serial packet sync transmitter that transmits said serial packet sync data stream on a single pin," is serial packet sync transmitter 502 implemented in the form of a shift register described in Paragraph [0049] of the specification.

The examiner relies on an SCTCM encoder of Krieger to meet this limitation. The SCTCM encoder of Krieger is shown in more detail in Figure 5 of Krieger and described in more detail at Col. 5 lines 45-50. As shown in Figure 5 and described in Col. 5 lines 45-50, SCTCM encoder of Krieger outputs multiple 8-PSK symbols. As shown in Figure 5, it appears that each symbol has a dedicated data line. As such, the SCTCM encoder of Krieger does not "transmit said serial packet datastream on a single pin." Thus, Krieger does not teach, suggest or disclose this element.

Because the combination of Gatherer, Chappell, and Krieger fail to disclose all of the elements of claim 19, claim 19 is patentable over their combination. Reconsideration and allowance of claim 19 is respectfully requested.

#### **Claim 20**

Claim 20 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Mannette et al. (US Patent 6,975,652) in view of Bobeck et al. (US Patent 6,075,787).

Claim 20 includes the element of "a serial packet sync receiver that receives a serial packet sync datastream on a single pin." The Examiner concedes that Mannette does not disclose "a serial packet sync receiver that receives a serial packet sync datastream on a single pin." See Office Action dated December 12, 2007 at page 29. ("Mannette does not explicitly disclose[s] receiving packet sync datastream on a single pin."). The Examiner relies the cable modem receiver in Bobeck et al. checking the occurrence of a bit pattern as teaching this element. A teaching of checking the occurrence of a bit pattern is not a teaching of "a serial packet sync receiver that receives a serial packet sync datastream on a single pin." Thus, Bobeck et al. does not teach, suggest or disclose "a serial packet sync receiver that receives a serial packet sync datastream on a single pin."

Because the combination of Mannettee and Bobeck fail to disclose all of the elements of claim 20, claim 20 is patentable over their combination. Reconsideration and allowance of claim 20 is respectfully requested.

***Other Matters***

A new Fig. 6 have has been submitted to correctly designate the serial packet decoder as element 348. This designation is consistent with the Specification at Paragraph [0049] and is not believed to introduce any new matter.

***Conclusion***

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicant believes that a full and complete

reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Michael D. Specht  
Attorney for Applicant  
Registration No. 54,463

Date: 4/14/08

1100 New York Avenue, N.W.  
Washington, D.C. 20005-3934  
(202) 371-2600

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